MODEL 2210
½" IMPACT WRENCH
OPERATING INSTRUCTIONS AND PARTS LIST

IMPORTANT! READ CAREFULLY BEFORE OPERATING THIS TOOL. FAILURE TO OPERATE ANY POWER TOOL PROPERLY CAN RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE.

SPECIFICATIONS:

MODEL	2210
Capacity	1/2"
Square Drive	1/2"
Torque (FT/LBS)	250
Air Pressure (PSIG)	90
Air Consumption (SCFM)	3
Air Inlet (NPTF)	1/4"
Hose Size Minimum (I.D.)	1/4"
Length	7-1/4"
Weight (LBS)	5

SAFETY RULES FOR IMPACT WRENCHES

1. Always use impact type sockets that are designed for impact wrenches.
2. Always wear approved eye protection.
3. Have throttle (trigger) in "off" position when connecting to air supply.
4. Disconnect tool before performing service or when not in use.
5. Always use tool a safe distance from other people in work area.
6. Maintain tools with care. Keep tools clean and oiled for best and safest performance. Follow instructions for lubricating and changing accessories. Wiping or cleaning rags and other flammable waste materials must be placed in a tightly closed metal container and disposed of later in the proper fashion.
7. Do not wear loose or ill-fitting clothing, remove watches and rings.
8. Never use quick change couplings at tool. They add weight and could fail due to vibration. Instead, add a hose whip and connect coupling between air supply and hose whip, or between hose whip and leader hose.
9. Don't overreach. Keep proper footing and balance at all times.
10. Don't force tool, it will do the job better and safer at the rate for which it was designed.
11. Don't abuse hoses or connectors. Never carry tool by the hose or yank it to disconnect from power supply. Keep hoses from heat, oil, and sharp edges. Check hoses for weak or worn condition before each use, making certain that all connections are secure.

Universal Tool

OPERATING INSTRUCTIONS

AIR SUPPLY

Wrenches of this class operate on a wide range of air pressures. It is recommended that air pressure of these tools measure 90 PSI at the tool while running. Higher pressure and unclean air will shorten the tool's life because of faster wear.

Water in the air line will cause damage to the tool. Drain the air tank daily. Clean the air inlet filter screen on at least a weekly schedule. The recommended hook-up procedure can be viewed in Figure 1.

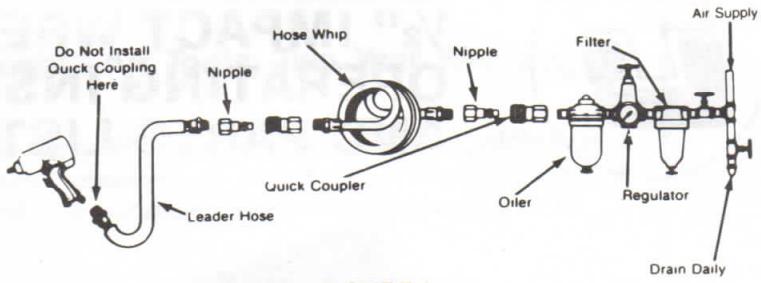

FIGURE 1

The air inlet (B) Figure 2, used for connecting air supply has standard ¼" NPT American thread.

Line pressure or hose inside diameter should be increased to compensate for unusually long air hoses (over 25 feet). Minimum hose diameter should be ¼" I.D. and fittings should have the same inside dimensions.

OPERATING

The air regulator knob (A) Figure 2, can be used as an air throttle, if there are no other means of regulating air. Turn the air regulator knob (A) all the way out for maximum power.

There is no consistent reliable torque adjustment on any wrench of this class. However, the air regulator (A) Figure 2, can be used to adjust torque to the approximate tightness of a known fastener.

NOTE: ***The air regulator knob (A) Figure 2, controls the output and power of the tool. This knob has been preset at the factory. To adjust the power output of the tool, turn counterclockwise to increase, and turn clockwise to decrease. Certain models are equipped with a 1/8" recessed hex set screw, located on the housing adjacent to the regulator knob. If your model incorporates this feature, you may find it necessary to loosen this hex screw prior to adjusting the regulator knob.***

When tightening nuts not requiring critical torque values, run nut up flush and then tighten an additional one-quarter to one-half turn (slight additional turning is necessary if gaskets are being clamped). For additional power needed on disassembly work, turn regulator to its fully open position. This impact wrench is rated at ½" USS bolt size. Rating must be down graded for spring U bolts, tie bolts, long cap screws, double depth nuts, badly rusted conditions and spring fasteners as they absorb much of the impact power. When possible, clamp or wedge the bolt to prevent springback.

Soak rusted nuts in penetrating oil and break rust seal before removing with impact wrench. If nut does not start to move in three to five seconds use a larger size impact wrench. Do not use impact wrench beyond rated capacity as this will drastically reduce tool life.

NOTE: Actual torque on a fastener is directly related to joint hardness, tool speed, condition of socket and the time the tool is allowed to impact.

Use the simplest possible tool-to-socket hook up. Every connection absorbs energy and reduces power.

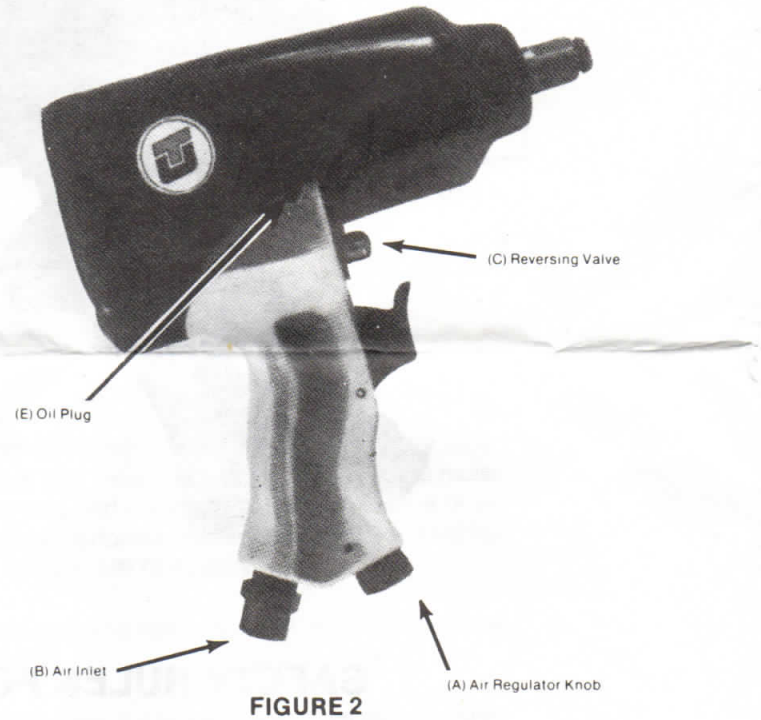

FIGURE 2

The reversing valve (C) Figure 2, is used to change the rotation of the tool. When the valve (C) is out, as shown in Figure 2, the tool is in a forward or right hand rotation. When the value is pushed in, the rotation is reverse or left hand.

LUBRICATION AND MAINTENANCE

Lubricate the air motor daily with a good grade of air motor oil. If no air line oiler is used, run a teaspoon of oil through the tool. The oil can be squirted into the tool air inlet (B) Figure 2, or into the hose at the nearest connection to the air supply, then run the tool. A rust inhibitive oil such as "Marvel Mystery" oil, available from auto supply stores, etc., is acceptable for air motor.

The oil plug (E) Figure 2, is **ONLY** for adding standard SAE 10 or 20 grade oil after repair or maintenance of the impact mechanism. The amount of oil to be used is 1 ounce. Overfilling will cause a reduction in the power of the tool.

Other factors outside the tool may cause loss of power or erratic action. Reduced compressor output, excessive drain on the air line, moisture or restrictions in air pipes or the use of hose connections or improper size or poor condition may reduce air supply. Grit or gum deposits in the tool may cut power and may be corrected by cleaning the air strainer and flushing out the tool with gum solvent oil or an equal mixture of SAE # 10 oil and kerosene. The use of worn or cracked sockets may prevent the wrench from delivering full power to the work. If outside conditions are in order, disconnect tool from hose, disassemble tool, replace worn or damaged parts, clean, reassemble and relubricate, or take tool to your nearest authorized service center.

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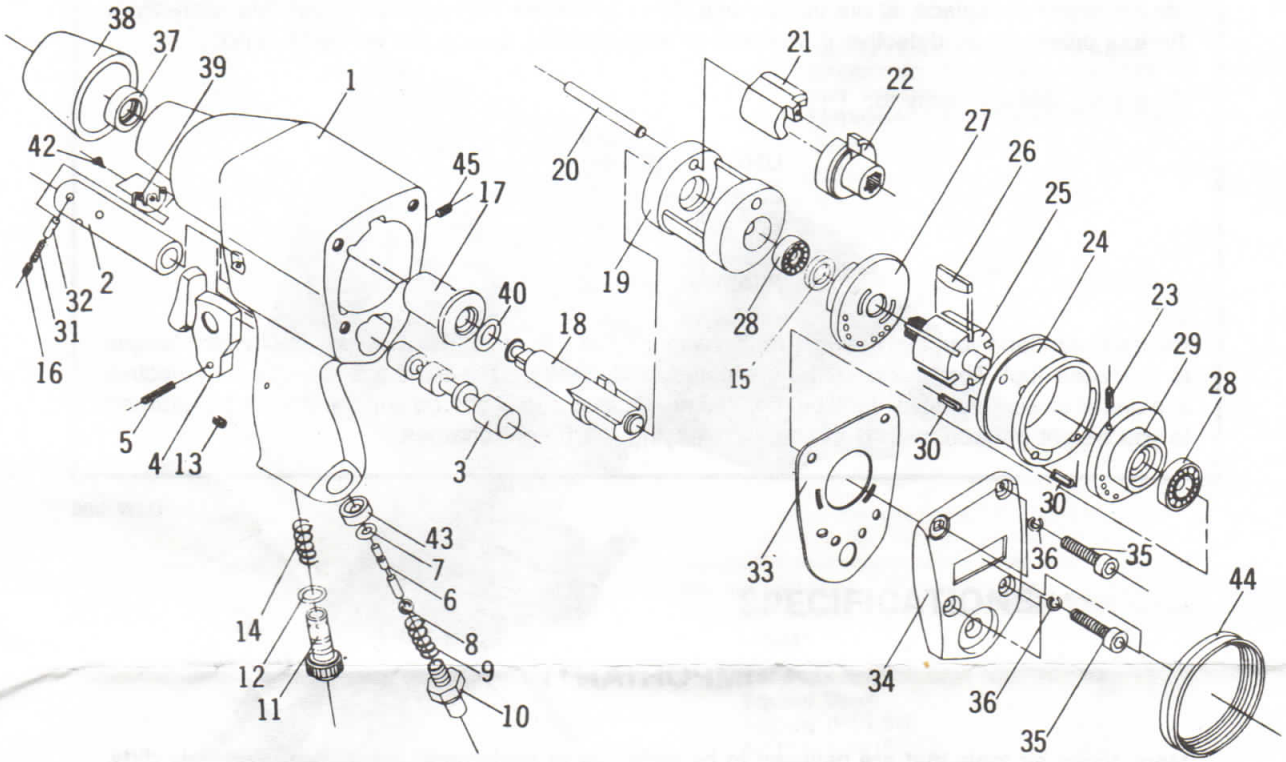

REF. NO.	PART NO.	DESCRIPTION
1	750872	Housing
2	750873	Valve Sleeve
3	750874	Reverse Valve
4	750875	Trigger
5	750876	Pin
6	750877	Valve Stem
7	750878	Seal
8	750879	Steel Ball
9	750880	Spring
10	750881	Hose Adapter
11	750882	Air Regulator
12	750883	Seal
13	750884	Screw
14	750885	Spring
15	750886	Seal
16	750887	Screw
17	750888	Anvil Bushing
18	750889	Anvil (½" Sq.)
19	750890	Hammer Cage
20	750891	Hammer Pin
21	750892	Hammer Dog
22	750893	Drive Cam

REF. NO.	PART NO.	DESCRIPTION
23	750894	Pin
24	750895	Cylinder
25	750896	Rotor
26	750897	Rotor Blade (6)
27	750898	Front End Plate
28	750899	Ball Bearing (2)
29	750900	Rear End Plate
30	750901	Pin (2)
31	750902	Spring
32	750903	Pin
33	750904	Rear Gasket
34	750905	Rear Cover
35	750906	Screw (4)
36	750907	Washer (4)
37	750908	Seal
38	750909	Protecting Rubber
39	750910	Exhaust Deflector
40	750911	Anvil Collar and Seal
42	750912	Screw (2)
43	750913	Bushing
44	750914	Rubber
45	750915	Screw
46	731123	Boot (as shown on cover)

Universal Tool "Professional" Air Tools, Two Year Warranty

Universal Tool warrants its Professional Air Power Tools for a period of two years to the consumer. We will repair or replace, at our option, any Professional Air Tool covered under this warranty. If the tool proves to be defective in material or workmanship during the warranty period,

Send your tool(s) directly to:

UNIVERSAL TOOL
2900 High Ridge Rd.
Boynton Beach Fl. 33435

Attn: Customer Service

Please Note! Send your tool Freight Prepaid with proof of purchase. You must pay the freight charges to Universal Tool. The tool(s) will be inspected, and if any part or parts are found to be defective in material or workmanship, it will be repaired or replaced free of charge and the tool will be returned to you freight prepaid, with Universal Tool paying the freight charges.

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IMPORTANT!

Many times air tools that are believed to be defective or performing poorly are often only dirty. Because these tools use compressed air to operate, they also have a tendency to accumulate moisture, dust and dirt inside the tool motor. Usually cleaning and oiling with a proper solvent is all that is necessary to bring the tool back to near its original performance. **CHECK YOUR OWNERS GUIDE FOR PROPER AIR MOTOR LUBRICATION AND MAINTENANCE.**

Please Note! Our warranty only covers defective materials and workmanship; abuse, misuse or lack of lubrication *are not causes classified as defective.*

This warranty gives you specific rights. You may also have other rights which vary from state to state.

The foregoing obligation is Universal Tool Company's sole liability under this or any implied warranty, and, under no circumstances, shall Universal Tool Company be liable for any incidental or consequential damages.

Note: Some states do not allow the exclusion or limitation of incidental or consequential damages; so the above limitation or exclusion may not apply to you.

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